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UNIVERSITY OF CENTRAL FLORIDA

COLLEGE OF ENGINEERING

ORLANDO, FLORIDA 32816

ANNUAL PROJECT REPORT

to

NASA KENNEDY SPACE CENTER

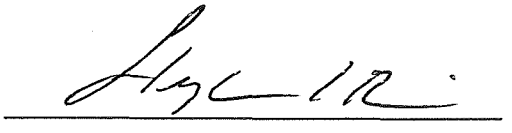
NASA -- PROJECT MANAGEMENT

16-10-204

under

COOPERATIVE AGREEMENT NCC-10-0003

for calendar year 1990



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Background

In the fall, 1988, exploratory meetings were held to determine ways in which the College of Engineering (COE) of the University of Central Florida (UCF) could assist Kennedy Spaceflight Center (KSC) in its mission oriented activities. In these meetings, NASA personnel briefed COE faculty and administrators on programmatic needs, and COE faculty presented their professional interests and expertise. Based upon these exchanges, it became evident that a number of projects could be conducted by UCF faculty in various colleges in support of KSC needs and mission objectives.

In March, 1989, UCF/COE submitted a proposal to KSC entitled "Cooperative Agreement for Technology Development -- Task Definition, Summer, 1989". The purpose of this work was to "enable improved problem definition and to initiate working relationships between UCF and KSC". Several specific work areas were identified, including Shuttle Close-Out Data Systems (Dr. Ragusa), Public Affairs Information Retrieval (Dr. Myler and Dr. Driscoll), Knowledge Acquisition from Natural Language Input (Dr. Gomez), Non-Destructive Evaluation (Dr. Moslehy), Corrosion Protection (Dr. Desai), and Shuttle Tile Processing (Dr. Hosni). A second proposal followed in June, 1989, to extend the process of defining specific tasks which would form the basis of a Cooperative Agreement covering several areas of technology. These were funded under Grant NAG-10-0058, which enabled work to continue into the beginning of 1990, when year 1 of the Cooperative Agreement NCC-10-0003 began.

Work Effort

Following the foundation laid under project NAG-10-0058, the Project Management activities for the Cooperative Agreement included several elements. First among these was coordination between the various academic units (Colleges of Engineering, Arts and Science, Business Administration, Education; and Departments of Computer Science, Mechanical and Aerospace Engineering, Industrial Engineering and Management Sciences, Computer Engineering, Management). Separate projects were conducted under eight separate UCF account numbers (plus one additional control account), each with one Principal Investigator and, depending upon the project, various students (graduate and undergraduate) and Co-Principal Investigators.

Regular Project Review Meetings were held on a quarterly basis, with the venue alternating between KSC and UCF. These meetings allowed for presentation of work accomplished to date, for suggestions on future activities, and for interaction between UCF and KSC personnel. Where appropriate, laboratory demonstrations were scheduled as a part of these meetings. It was apparent, through such regular interaction on each project, that the individual work efforts were going forward to effectively meet the needs and mission-oriented objectives of KSC.

Other activities under the Project Management include the continuing development of accounting procedures, databases, and user-friendly formats for presentation of information to PIs.

This work was accomplished by COE and Division of Sponsored Research (DSR) staff at UCF, and allowed overall monitoring and control of funding for each subproject of the Cooperative Agreement. Weekly meetings were held to review accounts and to evaluate budgetary situations, and individual PIs were contacted as necessary on various fiscal and work-related aspects of the projects.

The first year of the Cooperative Agreement ended approximately 11 December 1990, and the second year has begun with one project task having been phased out (Dr. Myler), and with two additional projects scheduled to come on-line (Dr. Gunnerson and Dr. Clausen). The ability to add and subtract projects as KSC needs dictate and UCF resources permit is an exceedingly valuable component of the Cooperative Agreement.